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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,046	05/08/2002	Abd. Al-Roof Higazi	143.006	2204

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EXAMINER	
BARNHART, LORA ELIZABETH	

ART UNIT	PAPER NUMBER
1651	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/063,046	HIGAZI, ABD. AL-ROOF	
	Examiner	Art Unit	
	Lora E Barnhart	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-10* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1, 2, 7 and 8, drawn to a composition of an EEIIMI polypeptide and a fibrinolytic agent and method of enhancing the fibrinolytic activity of said agent, classified in class 424, subclass 94.64.

II. Claims 3 and 4, drawn to a composition of anti-LRP antibodies and a fibrinolytic agent, classified in class 424, subclass 131.1.

III. Claims 5 and 6, drawn to a composition of LRP antagonist and a fibrinolytic agent, classified in class 424, subclass 185.1.

IV. Claims 9 and 10, drawn to a method of prolonging the half-life of a fibrinolytic agent using LRP antibodies, classified in class 435, subclass 188.5.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are drawn to two distinct compositions that do not require each other for use. Group I is drawn to a composition of a specific short polypeptide, EEIIMI, and a fibrinolytic agent and a method of enhancing fibrinolytic

activity of said agent. Group II is drawn to a composition of LRP antibodies and a fibrinolytic agent. While both groups are indeed drawn to polypeptides, the polypeptide of Group II encompasses antibodies, which comprise two heavy and two light chains containing constant and variable regions, and including framework regions which act as a scaffold for the six complementarity determining regions (CDRs) that function to bind an epitope. Thus, the polypeptide of Group I and the antibody of Group II are structurally distinct molecules.

In this case, the antibodies in Group II have a significantly different mode of operation than the short polypeptide of Group I. The antibodies in Group II have been raised against a specific protein, in this case LRP, and will bind specifically and strongly to said protein. The short polypeptide of Group I, on the other hand, has no such activity. Additionally, the claims as written show no necessity for the antibodies of Group II in the invention of Group I, and vice versa.

2. Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the different inventions are drawn to two distinct compositions that do not require each other for use. Group I is drawn to a composition of a specific short polypeptide, EEIIMI, and a fibrinolytic agent and a method of enhancing fibrinolytic activity of said agent. Group III is drawn to a composition of LRP antagonist and a fibrinolytic agent. While both groups are indeed drawn to polypeptides, the polypeptide of Group III is a recombinant 39kDa protein that is specifically known to

bind and to inhibit LRP. The polypeptide of Group I is significantly smaller, and no evidence is given that said polypeptide has any interaction with LRP. Thus, the polypeptide of Group I and the protein of Group II are structurally distinct molecules with different modes of operation. Additionally, the claims as written show no necessity for the protein of Group II in the invention of Group I, and vice versa.

3. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are drawn to two distinct compositions that do not require each other for use. Group II is drawn to a composition of LRP antibodies and a fibrinolytic agent. While both groups are indeed drawn to polypeptides, the polypeptide of Group II encompasses antibodies, which comprise two heavy and two light chains containing constant and variable regions, and including framework regions which act as a scaffold for the six complementarity determining regions (CDRs) that function to bind an epitope. The polypeptide of Group III is a recombinant 39kDa protein that is specifically known to bind and to inhibit LRP. Thus, the antibody of Group II and the protein of Group III are structurally distinct molecules with different modes of operation. Additionally, the claims as written show no necessity for the protein of Group II in the invention of Group III, and vice versa.

4. Inventions II and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially

different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composition of Group II could be used for materially different processes from the method of Group IV. It is possible to use the composition of Group II for *in vitro* studies of the effects of various fibrinolytic agents on anti-LRP antibodies' binding to their epitope on LRP. Additionally, fibrinolytic agents are known to activate signaling cascades, for example the induction of plasminogen production, and such processes could be studied *in vitro* using the composition of Group II. LRP is itself involved in specific biological processes, for example the regulation of cholesterol levels, studies of which could be undertaken using the composition of Group II. Finally, LRP is a receptor that binds diverse ligands, and studies of such interactions could be undertaken with the composition of Group II.

6. Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the composition of Group I, which includes a short polypeptide and a fibrinolytic agent and a method of enhancing fibrinolytic activity of said agent, is neither required for nor compatible with the method of Group IV, which is drawn to prolonging the half-life of a fibrinolytic agent using anti-LRP antibodies. The polypeptide of Group I is distinct from the antibodies required in Group IV, as detailed above.

7. Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In

the instant case the composition of Group III, which includes LRP antagonist and a fibrinolytic agent, is neither required for nor compatible with the method of Group IV, which is drawn to prolonging the half-life of a fibrinolytic agent using anti-LRP antibodies. The antagonist of Group III is distinct from the antibodies required in Group IV, as detailed above.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Election of Species

1. Claims 2, 4, 6, 8 and 10 are generic to a plurality of disclosed patentably distinct species comprising at least fifteen fibrinolytic agents. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

2. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Notice of Entitlement to Rejoinder of Process Claims

1. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of M.P.E.P. § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 C.F.R. 1.116; amendments submitted after allowance are governed by 37 C.F.R. 1.312.

2. In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 C.F.R. 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35U.S.C. §§101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See

"Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to maintain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

3. Further, note that the protection against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See M.P.E.P. § 804.01.

Sequence Disclosure Compliance Notice

1. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth below or on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. The polypeptide of claims 1, 2, 7, and 8, which Applicant has designated "EEIIMI," consists of four or more unbranched, non-D amino acids. All such sequences are relevant for the purposes of building a comprehensive database and properly assessing prior art. It is therefore essential that all sequences, whether only disclosed or also claimed, be included in the database.

2. Applicant is given ONE MONTH, or THIRTY DAYS, whichever is longer, from the mailing date of this letter within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). In no case may an applicant extend the period for reply beyond the SIX MONTH statutory period. Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lora E Barnhart whose telephone number is 571-272-1928. The examiner can normally be reached on Monday through Friday from 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lora E Barnhart
/eb/

SANDRA E. SAUCIER
PRIMARY EXAMINER